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- (71) Applicant (for all designated States except US): SAOIRSE CORPORATION [US/US]; 3 Ames Street, #120, Cambridge, MA 02139 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): KANE, Patrick, D. [US/US]; 6900 Shane Place, Anchorage, AK 02139 (US).
- (74) Agent: EISENSTEIN, Ronald, I.; Nixon Peabody LLP, 101 Federal Street, Boston, MA 02110 (US).

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(54) Title: LOCALIZED NON-INVASIVE BIOLOGICAL MODULATION SYSTEM

(57) Abstract: The present invention provides methods for non-invasive localized delivery of biologically active molecules, comprising packaging a molecule(s) of interest inside a thermosensitive particle, administering said particles to a subject, and inducing localized release of said molecules from said particles using a focused heat source. The thermosensitive particles may be thermosensitive polymer nanoparticles or thermosensitive liposomes. The particles may be delivered to a subject by any technique, including infusion. The molecules may be released from the particles using any method which induces localized hyperthermia, including focused ultrasound.